

TC ABSTRACT

I. Basic Project Data

▪ Country/Region:	PANAMA/CID - Isthmus & DR
▪ TC Name:	Support for technical transformation to promote the energy transition in Panama
▪ TC Number:	PN-T1311
▪ Team Leader/Members:	Alarcon, Arturo (INE/ENE) Team Leader; Silva Porto Diaz, Maria Teresa (SCL/LMK) Alternate Team Leader; Marquez Barroeta, Fidel (INE/ENE); Ricardo Espino (INE/ENE); Landazuri-Levey, Maria C. (LEG/SGO); Nicolas Tulande (INE/ENE)
▪ Taxonomy:	Client Support
▪ Number and name of operation supported by the TC:	N/A
▪ Date of TC Abstract:	30 Mar 2022
▪ Beneficiary:	Secretaria Nacional de Energía
▪ Executing Agency:	INTER-AMERICAN DEVELOPMENT BANK
▪ IDB funding requested:	US\$350,000.00
▪ Local counterpart funding:	US\$0.00
▪ Disbursement period:	36 months
▪ Types of consultants:	Individuals; Firms
▪ Prepared by Unit:	INE/ENE - Energy
▪ Unit of Disbursement Responsibility:	INE/ENE - Energy
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Productivity and innovation

II. Objective and Justification

- 2.1 The objective of this Technical Cooperation (TC) is to support the transformation of technical training in Panama, through a training program in clean energy, in particular electric mobility (ME) and distributed generation (DG), to be implemented through an itinerant mobile classroom, to promote the country's energy transition with the participation of the private sector. The program will be focused on testing re-training mechanisms in new capacities on ME and DG in people who work in traditional areas of the energy sector, and who, if their skills are not reconverted, could be displaced by the introduction of new technologies related to the energy transition.
- 2.2 The Government of Panama has prioritized the promotion of energy security and the diversification of the energy matrix, with a focus on promoting energy efficiency (EE), electric mobility (ME), and the development of renewable energy (RE). With the objective of decarbonizing the energy matrix, the National Energy Secretariat prepared in 2020 the Strategic Guidelines of the Energy Transition Agenda (ATE) that contains among its strategies: (i) strategy for the rational and efficient use of energy; (ii) EM strategy; (iii) Distributed Generation strategy; and (iv) innovation strategy for the National Interconnected System.
- 2.3 The proposed strategies have ambitious objectives to support the decarbonization of the sector and generate green jobs. By 2024, the ATE plans to reach 4.3% of DG installed capacity of facilities up to 2MW, in contrast to the current 1%. Regarding electric mobility, there are currently only 30 units in the country, a penetration of 0.005%, and

the ATE has the goal of bringing this percentage to 10% in 2024. Focusing on the mobility sector is key because it is responsible of 51% of the national emissions of the Greenhouse Gas Inventory of the Energy Sector in 2017. Reaching all the goals of the ATE would imply the creation of 15,687 net additional jobs by 2024, this represents 0.5% more than in the base scenario. This would lead to a reduction in the unemployment rate of -0.4% in 2024. Of the total additional jobs created, 15.9% corresponds to direct employment in the energy sector -which includes technologies related to transition- and the remaining 84.1% are indirect jobs, which are distributed throughout the economy.

- 2.4 Reaching the decarbonization goals and materializing the creation of these green jobs will require having trained technicians who can work in the provision of these new services. The private sector, and in particular the Association of Car Dealers of Panama (ADAP), the Panamanian Chamber of Solar Energy (CAPES) and the Panamanian Society of Engineers and Architects (SPIA), have expressed concern about the lack of technical capacity existing in the country for technologies that represent an innovation in the local market. In terms of EV, it is identified as a risk for Panama that it is not possible to have enough personnel to maintain vehicles, which could impact credits and insurance; or that due to lack of local capacity it is not possible to increase the infrastructure of charging stations at the necessary speed. In the same way, CAPES identifies as a key aspect for the growth of DG, the training and retraining of electrical technicians who can guarantee the installations, thus providing security for the development and growth of this technology. It is estimated that the installation of DG can create up to 3,000 jobs by 2030, with 450 permanent jobs. However, the multisectoral table that developed the DG strategy indicates that many municipalities do not have trained personnel with knowledge of DG, and it is necessary to hold technology training seminars, evaluate technical and university curricula related to DG, develop programs training of trainers in DG and develop new training programs in DG.

III. Description of Activities and Outputs

- 3.1 **Component I: Automotive Mechanics Retraining Program Design.** This component will finance the development of the retraining program for auto mechanics and technicians. The objective of this is to provide these mechanics with the necessary skills so that they can maintain EVs. It should be noted that the concept of retraining mechanics will allow older people to update their technical knowledge, representing for many the only way to adapt to new technologies
- 3.2 **Component II: Design of a training program for technicians in energy auditing, DG installation and installation of charging stations for EVs.** This training program for technicians will design, for the first time, a training curriculum combining in a single course three central topics of the energy transition (energy audit, DG and charging stations for electric vehicles) providing a greater range of knowledge and opportunities, by taking advantage of the synergies and common technical spaces of these three areas.
- 3.3 **Component III: Pilot implementation of the training program.** It will include the implementation of the pilot program in at least four locations, as a pilot, through virtual classrooms and the mobile classroom. With the support of the private sector companies participating in this program, the pilot will include a practical internship for technicians who complete the training, which substantially increases the possibility of obtaining a job once the training is completed
- 3.4 **Component IV: Monitoring and evaluation.** This component will support the evaluation of the program, as well as support for the administration of technical cooperation. The evaluation will aim to measure the success of the training by analyzing: (i) the number of people who complete the training and obtain certification; (ii) measuring

the effectiveness of the intervention in improving technical knowledge; and (iii) the participants in the training. training who get a job related to EV or GD.

IV. Budget

Indicative Budget

Activity/Component	IDB/Fund Funding	Counterpart Funding	Total Funding
Automotive Mechanics Retraining Program Design	US\$50,000.00	US\$0.00	US\$50,000.00
Design of a training program for technicians in energy auditing, DG installation and installation of charging stations for EVs	US\$50,000.00	US\$0.00	US\$50,000.00
Pilot implementation of the training program	US\$150,000.00	US\$0.00	US\$150,000.00
Monitoring and evaluation	US\$100,000.00	US\$0.00	US\$100,000.00
Total	US\$350,000.00	US\$0.00	US\$350,000.00

V. Executing Agency and Execution Structure

- 5.1 The Executing Agency is the Inter-American Development Bank (IDB). The TC will be executed by specialists from the Energy Division responsible for the Division's portfolio in the Panama Country Office and by the designated Project Team. The SNE will designate a team of professionals who will act as technical counterparts to the Bank's Project Team in the TC execution process. Likewise, there will be focal points in each of the private associations related to the topic of the TC.
- 5.2 The SNE has expressed interest in having the IDB be the executing agency, considering the Bank's experience in terms of DG, EE, electromobility, and the development of education programs. Additionally, the SNE has stated that it temporarily has limited operational capacity to execute the activities that are part of this TC, due to the pandemic, in addition to the Bank's agility in contracting and coordinating consultancies.

VI. Project Risks and Issues

- 6.1 A potential risk is that the program does not achieve the goals of training older people, since it is normally young people who are most interested in engaging in innovative activities. However, the program will develop an awareness plan for potential beneficiaries, which informs, among other things, how this training builds on the knowledge and previous experience of the participants in mechanics.
- 6.2 Given the COVID situation and the travel limitations of the consultants, it is expected that there could be delays in the work, for which the work plan will maximize the use of virtual meetings and technological tools for the management of the TC, to mitigate the risk of delays.
- 6.3 For the same reason, it is expected that there could be delays in the implementation of the training pilot in the field. However, since the start of the pilot would be scheduled to start in the second year of the TC, the project team will continue to monitor the progress of the current situation to take timely actions.

VII. Environmental and Social Classification

- 7.1 This TC will not finance feasibility or pre-feasibility studies of investment projects with associated environmental and social studies; therefore, it falls outside the scope of the Bank's Environmental and Social Policy Framework (ESPF).